

## Guidance for Literacy in the Content Areas

*“Teachers are responsible for students’ content knowledge while at the same time sharing responsibility for students’ literacy skills. Identify authentic opportunities for reading, writing, speaking, and listening in service of meeting the content standards of the discipline.” (2013-14 CIE)*

The 2013-14 citywide instructional expectations ask schools to focus on changes in classroom practice. Teachers in all grades and content areas are asked to plan and teach lessons that integrate the [Common Core instructional shifts](#) where appropriate. The following is offered as guidance to social studies and science teachers looking to integrate the Common Core literacy shifts into their instruction.

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## **Do the citywide instructional expectations apply to teachers of content areas other than ELA and math?**

The citywide instructional expectations apply to teachers of all content areas, not solely ELA and math. While content area teachers are responsible for the State standards of their discipline, they share responsibility for discipline-specific literacy skills as well, and should be incorporating the Common Core instructional shifts into their practice over the course of the year.

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## **What is the role of social studies and science teachers in developing students' literacy skills?**

Content area teachers are first and foremost teachers of their discipline's content. While the CIE calls upon content area teachers to share responsibility for students' literacy skills, this does not mean that literacy skills should be taught at the expense, or in place, of each discipline's content. Students should be engaging in reading, writing, speaking, and listening in ways that are authentic to the discipline and in service of the content. Along with textbooks, authentic and discipline-specific texts should be used (e.g. primary and secondary source documents in social studies; journal articles, research papers, data tables, charts, or graphs in science) whenever possible.

### **Example: Focus of understanding using Martin Luther King Jr.'s "I Have a Dream" speech**

<b>In the ELA classroom</b>	<b>In the social studies classroom</b>
While studying author's craft, students read Martin Luther King Jr.'s "I Have a Dream" speech to deepen their understanding of metaphor and tone. Students then write an informative essay exploring how Dr. King uses figurative language to advance his argument.	During a unit on the Civil Rights movement, students conduct a close reading of Martin Luther King Jr.'s "I Have a Dream" speech, analyzing King's argument and evidence. Students then write an argumentative essay comparing the effectiveness of King's argumentative and leadership tactics to those of other leaders of the Civil Rights movement.

### **Example: Text-based writing using *The Omnivore's Dilemma***

<b>In the ELA classroom</b>	<b>In the science classroom</b>
After reading chapter 8 of <i>The Omnivore's Dilemma: The Secrets Behind What you Eat</i> (Young Readers Edition) and an excerpt from Upton Sinclair's <i>The Jungle</i> , students write an informative essay in which they analyze how the authors organized and developed their arguments on the role of food production in American society.	After reading chapter 8 of <i>The Omnivore's Dilemma: The Secrets Behind What you Eat</i> (Young Readers Edition), students write an informative essay in which they analyze how human consumption of resources impacts the environment and our health. This writing illuminates the required science knowledge of the discipline as outlined in the State content standards.

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**Is literacy instruction the same in the content areas as it is in ELA?**

While strong literacy skills stretch across disciplines, students must utilize unique discipline-specific strategies to effectively and efficiently analyze texts in social studies and science classrooms. Disciplinary literacy instruction calls for teachers to guide students to read “like insiders” in each field, giving targeted consideration to specific textual elements in each discipline (e.g. weighing historical context in a social studies text, and analyzing data and tables in a science text). Supported by direct instruction of the unique skills and demands of discipline-specific texts, students are able to read using the “tricks of the trade” to access content and develop their literacy skills in each discipline.

The following resources offer further guidance on disciplinary literacy:

- Timothy Shanahan’s [“College and Career Readiness: Disciplinary Literacy”](#) presentation
- Timothy and Cynthia Shanahan’s [“What is Disciplinary Literacy and Why Does it Matter?”](#) article
- Zhihui Fang and Mary Schleppegrell’s [“Disciplinary Literacies Across Content Areas: Supporting Secondary Reading Through Functional Language”](#) article

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**Does teaching literacy in social studies and science mean students should read and write about content rather than build content knowledge in other ways?**

While reading and writing are key elements of instruction, they should be done alongside, and not in place of, hands-on projects, activities, and trips.

**Example: Shifted practice in social studies and science**

In the social studies classroom	In the science classroom
In a unit on 20 <sup>th</sup> century immigration, in addition to reading a scaffolded series of complex texts about New York City tenement life, students analyze images of life in the tenements and visit the Tenement Museum to learn about the period. Students then discuss and compare how the depiction of the era differs in fictional and informational sources.	In a unit on electricity, students use electrical tape, batteries, paper towel tubes, mason jars, alligator clips, mechanical pencil refills, and pie pans in order to make their own light bulbs, in addition to reading text about circuits. Then they write about and discuss the reasoning they used in building the circuits, citing evidence from the text they read that informed their thinking.

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**Should teachers always explain content and complex texts prior to students reading or learning independently?**

Depending on the needs of their students, teachers often provide context when introducing new content or texts. However, they should also plan for opportunities where students engage directly with content to develop their own understanding and strengthen their discipline-specific literacy skills. This allows students to build understanding independently and purposefully. In addition to teacher-mediated instruction, students should be expected to acquire content knowledge and understanding independently through a variety of learning experiences (e.g. reading, writing, hands-on activities and rich, rigorous discussions).

**Example: Shifted practice in social studies and science**

In the social studies classroom	In the science classroom
<p>As part of a unit on the American Revolution, students engage in a lesson where they read and analyze the <i>Declaration of Independence</i>. Following a supported close read of the first two paragraphs of the text, the teacher has students independently answer the following questions:</p> <ul style="list-style-type: none"><li>• Who is the intended audience of this text? How do you know?</li><li>• Which words or phrases are most important in this part of the document? Why?</li><li>• What evidence suggests that the authors feel they are well within their rights to overthrow the government?</li></ul> <p>After students locate evidence in the text and record responses to the questions, the teacher facilitates a class discussion in which students draw on evidence from the text to develop their understanding of the content and support their analysis.</p>	<p>Prior to reading <i>Surrounded by Light</i> by Alfred J. Smuskiewicz, the teacher asks select open-ended questions about light to activate students’ prior knowledge. The teacher then reviews the discipline-specific lens that scientists employ in reading texts, setting a purpose for student reading. Students then read the text, scaffolded by a series of text-dependent questions related to the concepts of reflection, refraction, and absorption that lead to the synthesizing activity which asks students to explain and analyze the properties of light, e.g. “Why do certain colors ‘glow’ or reflect in black light?”</p>

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**Does vocabulary instruction for content area teachers include teaching domain-specific vocabulary only?**

While domain-specific vocabulary is important, robust vocabulary instruction should also include general academic vocabulary (“tier 2” words as defined by [Appendix A](#) in the Common Core) that stretches across disciplines. Tier 2 words should be strategically selected for instruction based on their utility

across a variety of contexts and content, frequency of occurrence, and in relation to other words with common roots and meanings. Utilizing tools such as vocabulary filters, word families, and morphological analysis to determine words that merit instruction can be strong drivers for advancing vocabulary development in social studies and science classrooms.

The following resources further explore vocabulary instructional practices and strategies:

- Vocabulary discussion in [Appendix A](#) of the Common Core (pages 32-35)
- Presentations and information on [Vocabulary Filters: A Framework for Choosing Which Words to Teach](#) and [Morphological Awareness](#) from the *Text Project*

#### Example: Vocabulary instruction in social studies and science

In the social studies classroom	In the science classroom
While reading <i>The Federalist Papers</i> , as part of a unit on the Constitution, the teacher supports students in using morphological analysis to identify the meanings of tier 2 vocabulary words (“ <i>consensus</i> ” and “ <i>representation</i> ”) and tier 3 domain-specific vocabulary (“ <i>democracy</i> ” and “ <i>legislature</i> ”). The teacher reviews a selection of key root terms before reading so that students can work together to breakdown word parts in both academic and domain-specific terms to generate understanding of content within the text. Throughout the unit, students are called on to appropriately and accurately embed discipline-specific vocabulary and tier 2 words in their writing and discussion.	Before instruction, the teacher identifies a collection of domain-specific and academic vocabulary terms for instruction. While reading a science report on plant energy production as part of a unit on photosynthesis, the teacher supports students in using context clues to identify the meanings of tier 2 words (“ <i>process</i> ” and “ <i>generate</i> ”), in addition to domain-specific vocabulary terms (“ <i>photosynthesis</i> ” and “ <i>chlorophyll</i> ”). As the unit progresses, the teacher should call on students to use discipline-specific vocabulary and tier 2 words appropriately and accurately in discussion and writing about the content.

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#### What does meaningful argument look like in social studies and science?

Both informative and argument writing have their place in social studies and science classrooms, and both types of writing should be included often. Not everything, however, should be framed as argument. While making evidence-based arguments is an important part of the Common Core Learning Standards, students should not engage in arguments about established historical or scientific issues on which most experts and research are in agreement. Students should engage in authentic arguments that are relevant to a discipline, using multiple sources and logical evidence to support their claims.

### Example: Argument in social studies and science

In the social studies classroom	In the science classroom
<ol style="list-style-type: none"><li>1. During a unit on the French Revolution, students read and analyze the text <i>Napoleon Bonaparte</i> by Eric Badertscher, <i>The Napoleonic Code</i> established under the rule of Napoleon I, and <i>Napoleon</i> by Laurent Joffrin. Using evidence culled from the texts, students write an argumentative essay that addresses the question: Did the reign of Napoleon undermine the spirit of the French Revolution?</li><li>2. After reading informational texts on river valley civilizations, students write an essay that identifies and argues the most important human development that emerged from river valley civilizations.</li></ol>	<p><u>Research Based Example</u></p> <ol style="list-style-type: none"><li>1. Students identify locations of major coral reef systems and gather current data on overfishing and pollution trends to create arguments as to which coral reef ecosystem is most at risk of human impact. Then, they research and propose solutions as to how inhabitants of these areas can alter their practices to reduce this impact and argue the priority with which these solutions should be implemented to maximize reduction of human impact on this area.</li></ol> <p><u>Argument Through Experimental Design</u></p> <ol style="list-style-type: none"><li>2. Before engaging in an experiment, students develop hypotheses on why substances emit different colors of light when heated. In a lab, students pass a wire dipped in individual elements (e.g. sodium, barium, copper, and lithium) through a flame, observing and recording variations of flame intensity and color. In pairs, students analyze their data to determine whether it supports their original claim, writing a lab report that links their hypothesis, data, findings, and background research conducted in class.</li></ol>

*Please note: Careful consideration should be used when selecting topics for argument so that students are not offended or confused by unnecessarily provocative argument tasks.*

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### Text selection guides for social studies and science

The following guides offer resources and guidance for locating, selecting, and embedding complex texts into secondary social studies and science instruction.

- Links to [online resources featuring complex and authentic texts for social studies](#)
- Links to [online resources featuring complex and authentic texts for science](#)

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